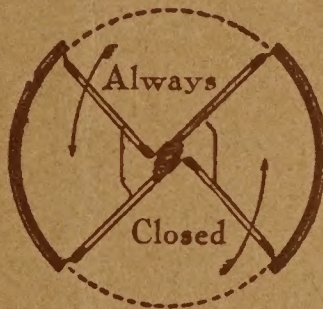


American Standard Revolving Doors



AMERICAN
REVOLVING DOOR
CO.

2512-14 MONROE STREET, CHICAGO

A CATALOG of Revolving Doors, at its best, can deal only in generalities. No given scheme will fit with precision the needs of more than one occasion. Each building will vary in conditions, layout and finish with a corresponding difference in the door proper to serve it.

The object, then, of this booklet is to present to architects, builders and interested laymen as well, in as clear and concise a manner as possible, the advantages and uses of the American "Standard" Revolving Door, together with an explanation of its principle and description of its operation.

The revolving door is a proved architectural triumph of unquestioned economy and practical efficiency. We hope that this booklet will convey to you an appreciation proportionate to its merit.

The American "Standard"

Revolving Door

Is the recognized "Standard" of Revolving Doors. Its use in all parts of the country and in buildings costing millions of dollars is the best tribute to its usefulness. Its superiority over all old-style vestibules and regular front doors is so evident that in the entrances to our larger buildings no other door is considered.

As a heat, fuel and money saver no other invention in recent years has contributed more to the health of the occupants or added more to the dividends of the owner of the building than the American "Standard" Revolving Door.

American "Standard" Revolving Doors are built complete in our Chicago factory. The mechanical features are fully covered by Patent No. 906175, dated Dec. 8, 1908, owned by us and represent the most simple and efficient method of construction and operation in use today. Materials, workmanship and finish are matters of special pride with us and are the best obtainable.

Each door is erected complete before shipment, and operated as a final test to prove that it is right in every particular.

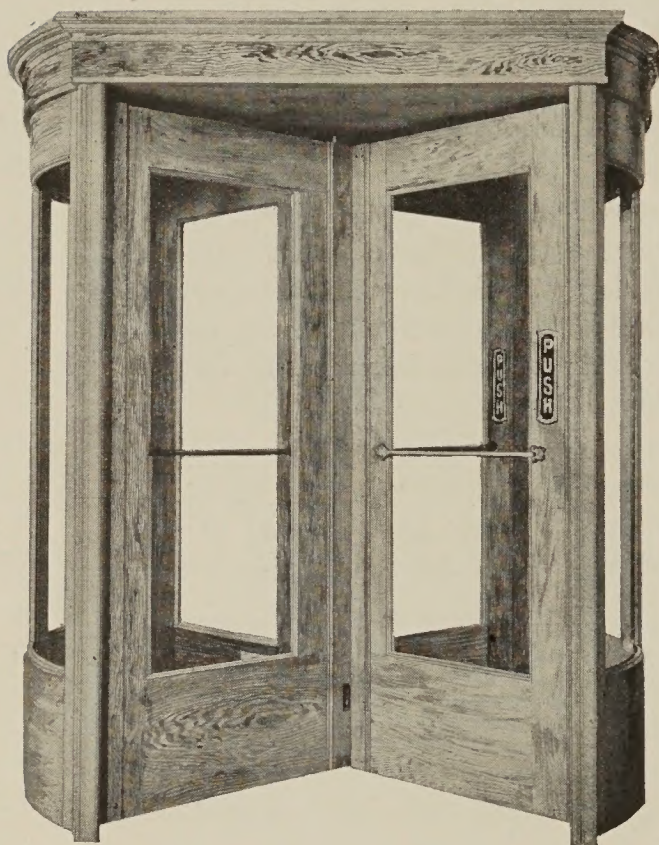
Every door is guaranteed against all defects of material, workmanship or construction.

We furnish complete directions for installing the American "Standard" Revolving Door, and any intelligent mechanic who will follow them can install our door correctly.

AMERICAN REVOLVING DOOR CO.

Office and Factory: 2512-2514 West Monroe Street, Chicago.

Design A



The "American Standard" Revolving Door.

Its leading features:

As a **main entrance door** of a building it takes the place of a number of successive swing doors. It requires **no vestibule**, as it is its own vestibule and therefore **economizes** space. It dispenses entirely with the unsightly "**Storm Houses**" and "**Sheds**," and their removal and re-erection every season.

It makes **the most convenient entrance**, free from obstructions and is as light and airy in appearance as if no winter doors were in use. Its **elegant appearance** makes its removal during the summer season unnecessary, and it is therefore **a door for all the seasons**.

It is the **most effective** fuel saver ever devised.

It is a door that never needs closing, cannot be left open, blown open or slammed.

It accomodates a **greater number of passers** than any other door system, because it keeps the ingoing and outgoing crowds **separated** and thereby **prevents collisions**.

Its **exclusion of all street noises** and **the noiseless action of the door itself**, the absence of checks, springs, bumpers and weights. Is especially important in churches, theatres, lecture halls, libraries and court rooms.

The four rotating wings **may be folded** flat on each other and **moved aside** by one person single handed in a few seconds, leaving a free passage way for furniture, bulky packages or full ventilation in pleasant weather.

The **complete exclusion** of all wind, rain, snow and dust **during the severest storms**, while people are passing comfortably in and out, is **the crowning merit** of the Revolving Door.

The "American Standard" Revolving Door consists of two segmental walls, a ceiling and the rotating structure

Our illustrations, figures 1 and 2, show for descriptive purposes one of the most popular designs of a "Standard" Revolving Door, but any other design of walls, wings and cornice may be substituted.

Dimensions

The standard height of a revolving door structure between floor and ceiling is usually 7 feet, $7\frac{1}{2}$ feet or 8 feet. The inside diameter of the cylindrical vestibule is 6 feet, $6\frac{1}{2}$ feet, 7 feet, $7\frac{1}{2}$ feet or 8 feet.

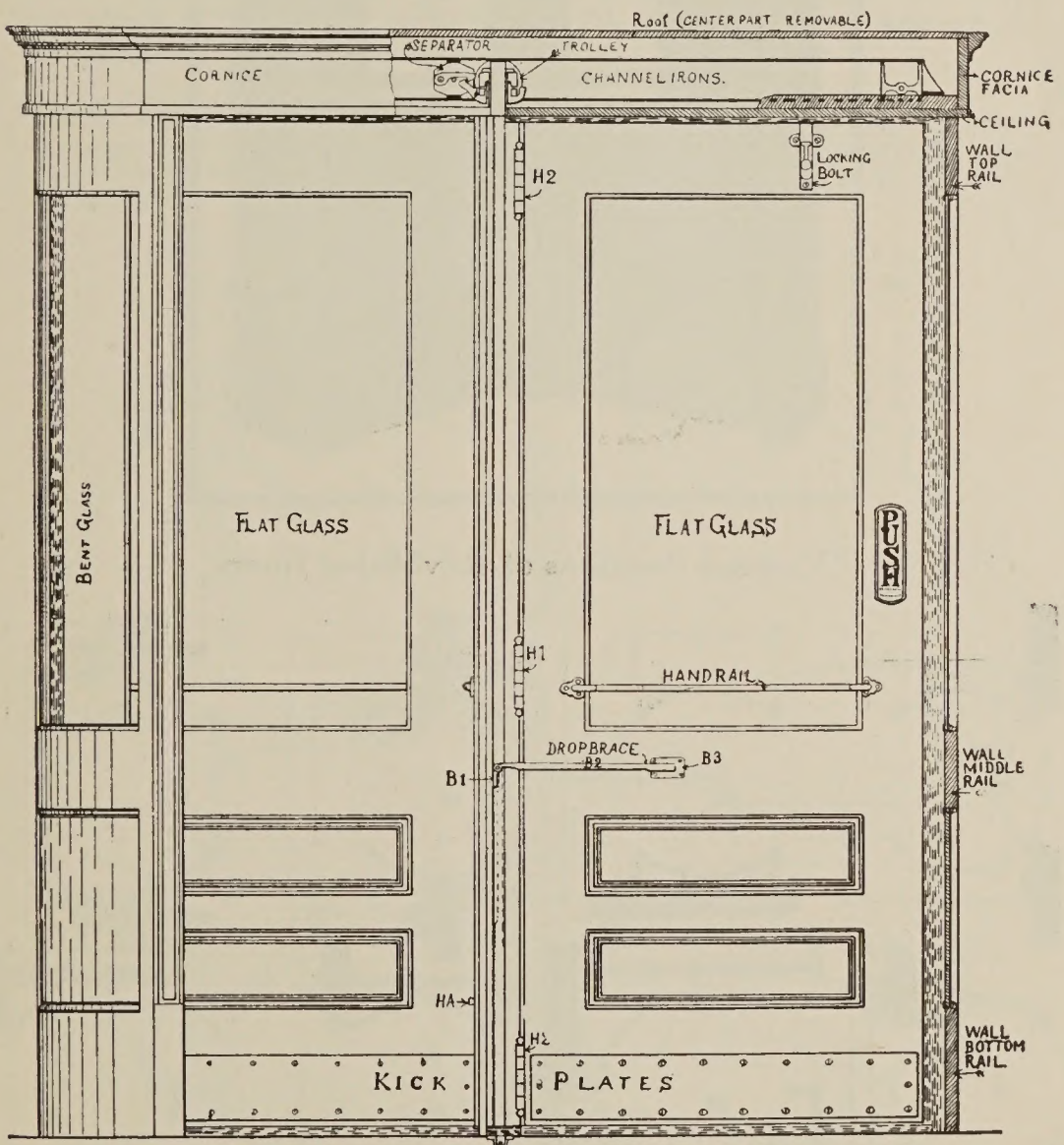
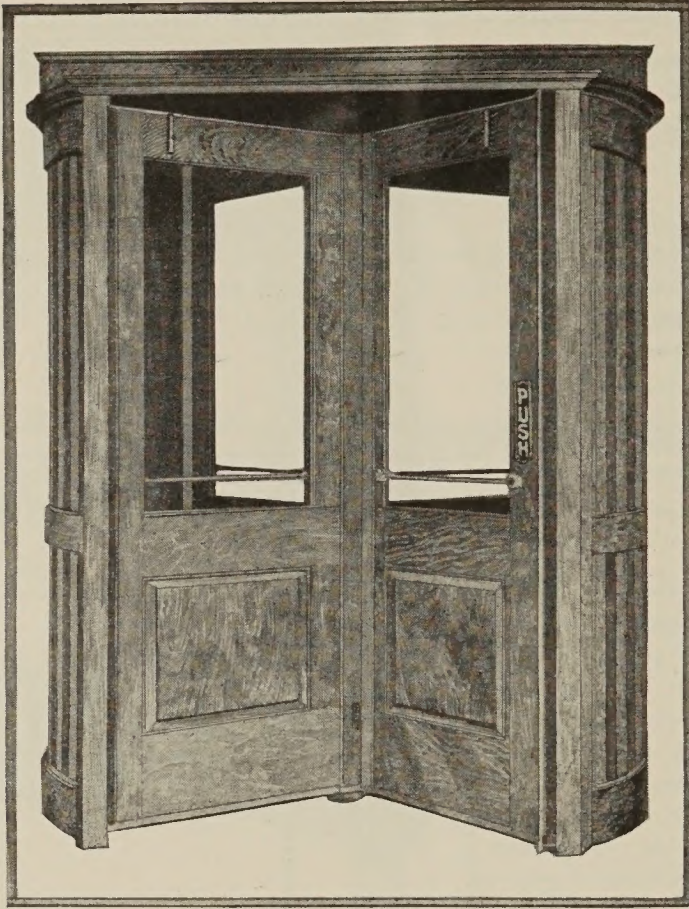
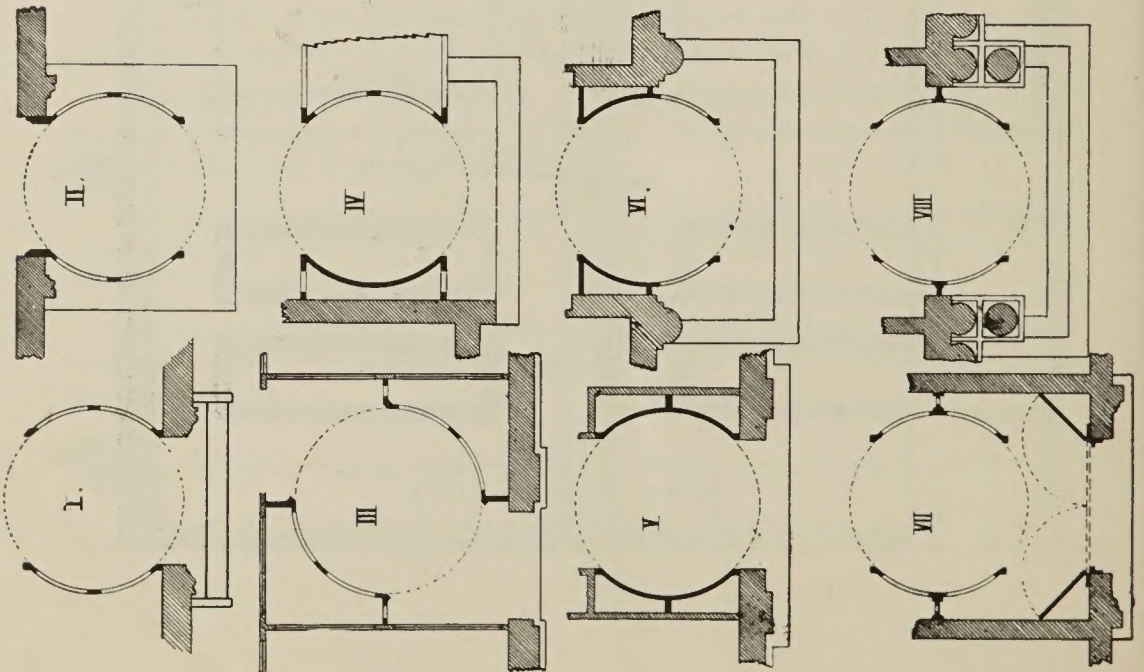


Fig 1

Design B



Various Positions of Revolving Doors



The Two Curved Walls

The two curved walls are made of a true circle in segment shape and each is horizontally about one and one-half inch wider than a quarter circle, in order that at least two of the wings are constantly in contact with the two walls, which makes them "always closed." The inside of the walls must be made of a cylindrical true smooth surface. No beading, grooves or other irregularity of this surface is permissible.

The walls may be made of tongued and grooved material, held in shape by wooden or iron bands; or they may be framed together of curved stiles and bent rails, filled flush with bent wood or glass panels. Walls may also be of electroplated cast iron, cast bronze, marble, tile, concrete or any other suitable material.

Curved marble bases, to correspond with base in hallway, may be placed under the wooden walls, to prevent marring the same from frequent mopping of the floors; or sheet brass or bronze may be placed at the bottom of the curved walls to protect that portion of the woodwork from injury, but these last named features are not essential, they only add to the good appearance of the structure.

The Ceiling

The ceiling must be flat and smooth underneath and like the inner surface of the walls, beading, grooving or other irregularities must be omitted. The edge of the ceiling may be crowned with a neat moulding, design B, or a regular cornice may surround the ceiling, design A or figure 1.

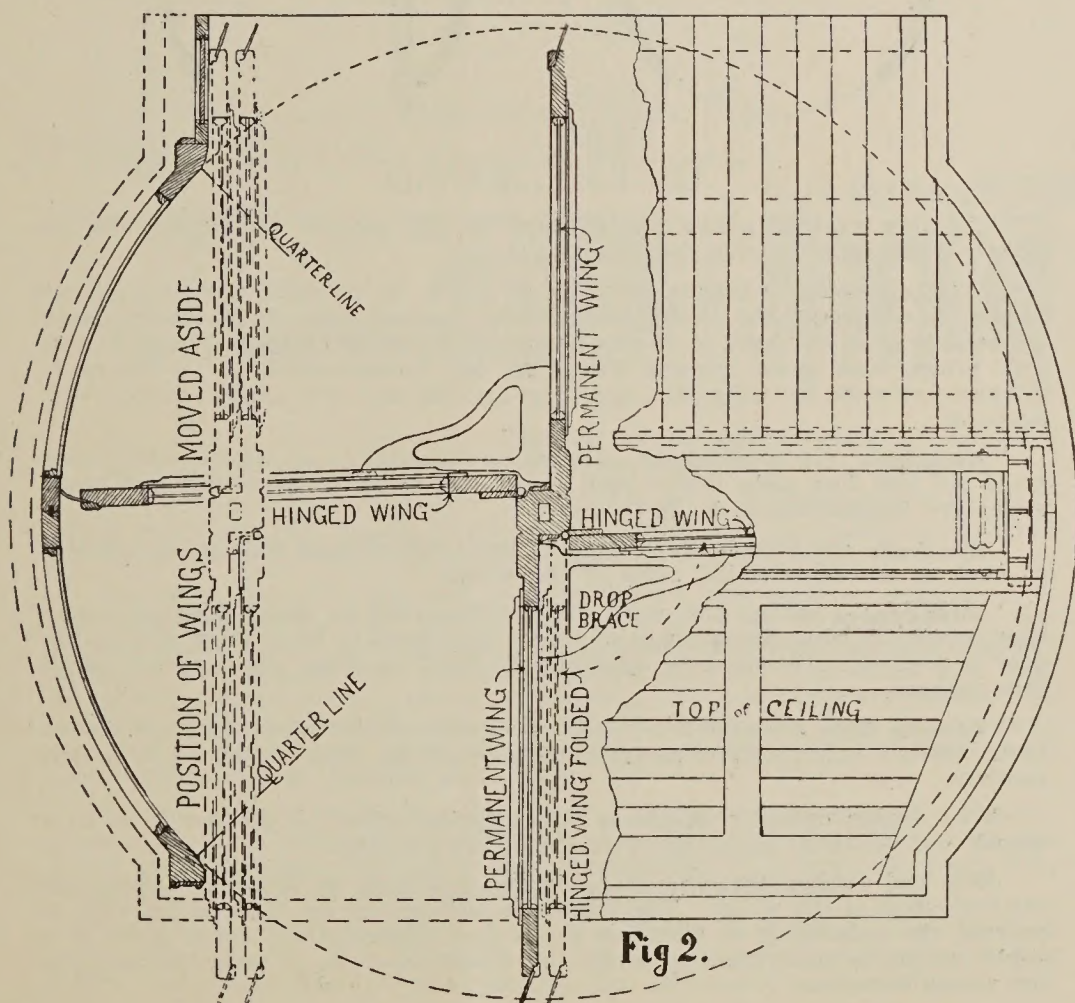


Fig 2.

Diagram A
Wings Revolving, "Always
Closed"

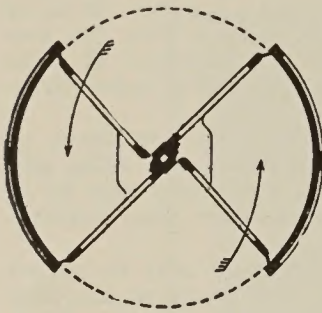


Diagram B
Half Open Position

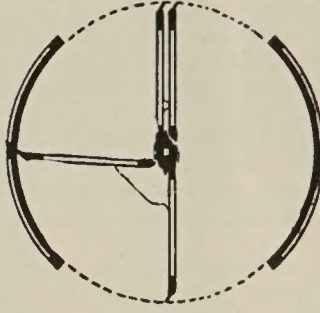


Diagram C
Folded and Fastened
Centrally

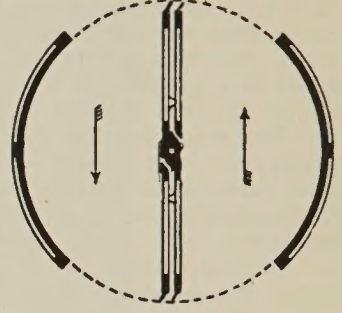


Diagram D
Folded and Locked

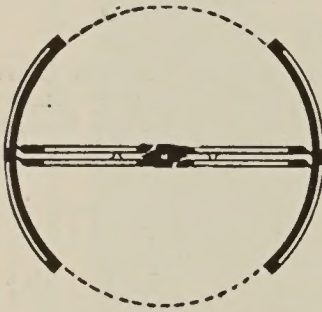
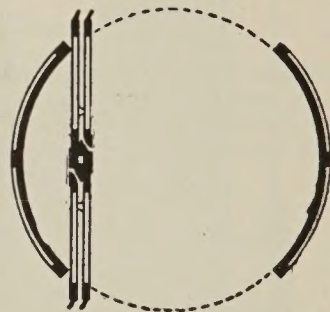


Diagram E
Folded and Moved Aside



The Rotating Wings

The four rotating wings may be made in any popular design, but the following items must receive consideration:

Lightness—The wings should be as light as possible and still strong enough to withstand the considerable strain imposed upon them; heavy wings are hard to start and hard to stop and must therefore be avoided; bronze or cast iron wings, even metal covered wings are not recommendable. In regard to thickness of wood for wings one and three-eighths inch will answer all practical purposes.

Kickplates are a necessary adjunct to revolving door wings. We recommend not less than eight inches high and No. 12 gauge rolled metal; cast metal plates are impractical as being too heavy.

Handrails are the means of pushing the wings around and one is sufficient on each at the approaching sides of the wings.

Pushplates having the word "Push" displayed in large, distinct letters, show people in what direction to go; they don't need to be of large size, as the door is not pushed forward by applying the hand on them, the handrail fulfills this purpose.

Locking Bolts are attached to the upper edge of the wings, in order to lock them against unauthorized passage, or for holding them in an open central position.

Two double cylinder **Keylocks** are attached when so desired to lock or unlock the structure from out or inside of the building.

Felt and rubber **Weatherstrips** form an airlock at the top, bottom and vertical edges of the wings. The vertical weatherstrips are made extra wide to prevent the possibility of pinching hands and fingers; they are also set at a slight incline to make them noiseless and tend to prevent rotating the wings in the wrong direction.

Suspension Device

As the four rotating wings of the "Standard" Revolving Door are so arranged that they can be folded together and moved to one side of the vestibule to clear the entire opening, they naturally cannot be made to turn on a pivot which rests on the floor. Therefore, and also for the purpose of keeping the bearing parts away from dirt and dust, *the rotating structure is suspended from above*, from a carriage which rests on a pair of channel irons, supported above the ceiling and extending from middle of one wall to the middle of the other wall. These channel irons are encased in a neat moulded box when a low crown moulding is used in place of a cornice, see design B, but with a regular cornice, design A, of not less than seven inches in height, the channel irons are completely concealed between the ceiling and the top cover.

The wings are connected at their central upper edges to a kingbolt, K, (see figures 3, 4 and 5), which top-end rests by means of a pin, P, upon an annular bearing plate, BP, supported by ball bearings, BB, confined in a dust-proof bearing cup, BC.

Fig 3. Top View of Trolley Device.

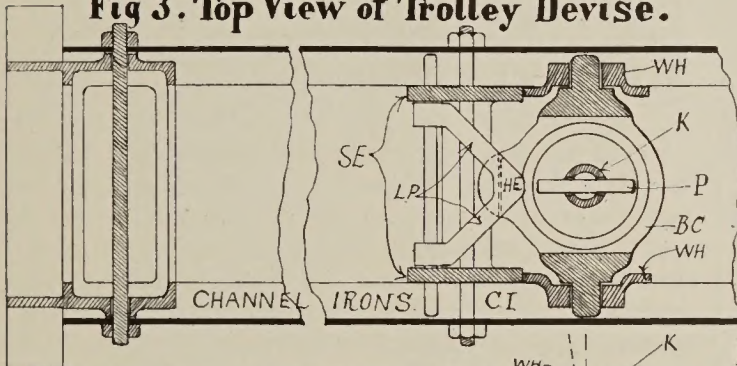


Fig 4. SIDE VIEW of Trolley.

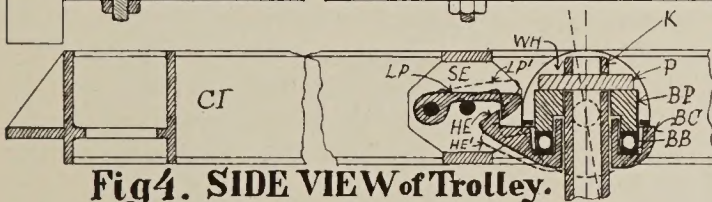
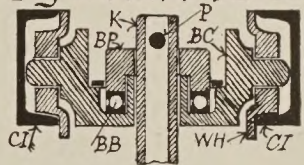


Fig 5. CROSS SECTION.



The balls of this bearing are absolutely true spheres, made of tool steel and move in a bronze casing on case-hardened steel rings.

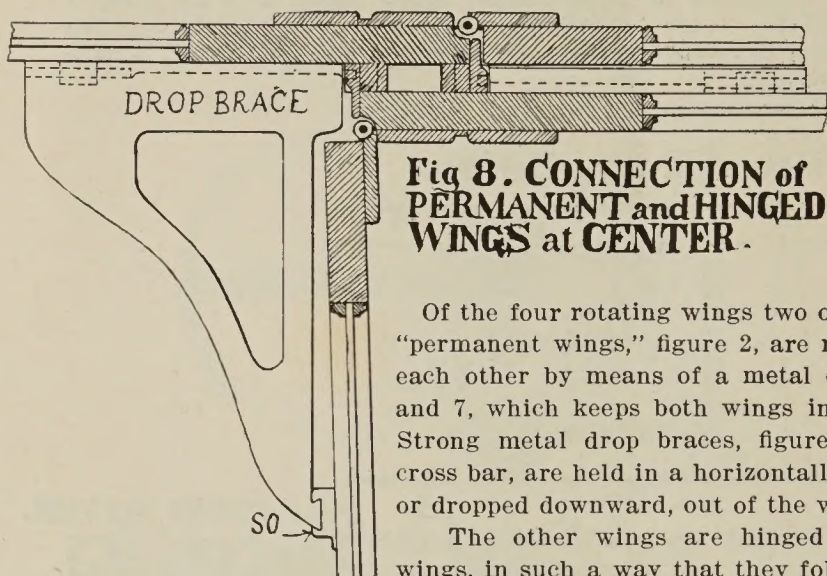
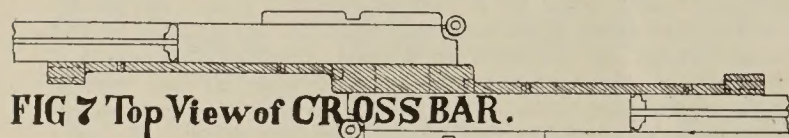
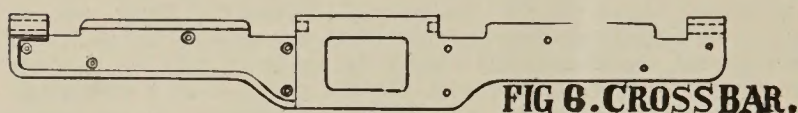
The bearing cup is supported on two wheels, WH, and forms a carriage, which, when not held rigidly in its center position, can be rolled forward and back upon the lower flanges of the two connected channel irons, CI.

But when the revolving door is to be rotated, this carriage, with kingbolt and suspended wings, must be held absolutely rigid in the center. For this purpose and to keep the channels in perfect alignment, a separator, SE, is placed in such a way near the middle of the channels, that, when the wings with their kingbolt are moved towards the center position, the two wheels stop against the flanges of the separator and cause lockplate, LP, to engage a hook shaped extension, HE, of the carriage, which arrangement keeps the carriage confined to its center position until disengaged.

For the purpose of keeping the wings at the floor in their center position, a steel pivot pin moving vertically in a bronze lined casting, fastened to the lower end of the inner wing edges, can be dropped down into a cast bronze floor socket and be lifted up when the wings are to be moved aside.

The revolving wings, held at the bottom by the pivot pin entering the floor socket and at the top by the kingbolt carriage engaging the lockplate of the separator, are now secured in such a position that they can be freely rotated.

Folding Device



**Fig 8. CONNECTION of
PERMANENT and HINGED
WINGS at CENTER.**

Of the four rotating wings two opposite ones, called "permanent wings," figure 2, are rigidly connected to each other by means of a metal cross bar, figures 6 and 7, which keeps both wings in proper alignment. Strong metal drop braces, figure 8, hinged to this cross bar, are held in a horizontally extended position or dropped downward, out of the way.

The other wings are hinged to the permanent wings, in such a way that they fold flat against their adjacent wings. To keep the hinged wings in extended position, they are provided with metal sockets, SO, figure 8, which the ends of the drop braces engage.

When it is desired to fold the wings, unhook the drop braces from their sockets and swing them downward, then fold the hinged against the permanent wings and catches, not shown in the cuts, keep the wings together, which may then be fastened in central open position by means of locking bolts, see figure 1, or swung across the vestibule to lock it completely.

Sliding Device

When the wings are folded and stand in central open position, they may be completely moved to one side, by lifting the bottom pivot from the floor socket and pushing against the lower part of the folded wings, which operation automatically disengages the overhead lockplate, and causes the entire suspended structure to roll on its wheels towards one side of the vestibule, where it will stop against the wall posts. The locking bolts are then pushed into their ceiling plates and the bottom pivot dropped into a side socket provided for in the floor.

To restore the wings to their rotating position, withdraw lockbolts and bottom pivot, wheel back to the center, where the automatic catch in the ceiling will engage and retain the wings in center position. Then drop the bottom pivot into the floor socket and readjust the wings to their rotating position.



The above is an illustration of the American Revolving Door in the main entrance of the world famous Congress Hotel, Chicago.

The daily use of our Doors at the portals of this celebrated hotel is a mute tribute to its merit.



Western Union Telegraph Building, Chicago

OFFICE OF THE
WESTERN UNION BUILDING
111 WEST JACKSON BOULEVARD
CHICAGO

W. I. LAKE, AGENT

August 8th, 1913.

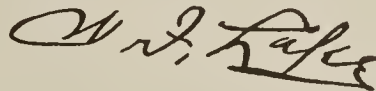
American Revolving Door Co.

Chicago, Ill.

Gentlemen. -

Replying to your inquiry as to revolving door installed at main entrance of this building by you last Fall beg to say that same is giving good service and we are thoroughly satisfied. The door requires very little attention and is easy to operate.

Yours truly,



Agent.

The Leiser Company

LADIES' WEARING APPAREL

324 SO. MICHIGAN AVENUE

TEL. HARRISON 3409-3410

NEW YORK
215 4TH AVE.
DULUTH, MINN.
QUINCY, ILL.
LIMA, OHIO

Mr. J. J. Schaller,
% American Revolving Door Co., *Chicago,* August 11th 1913
2512 W. Monroe St. Chicago.

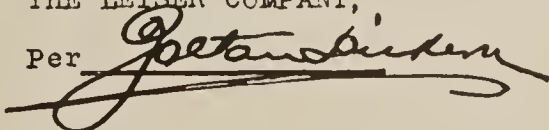
Dear Sir:

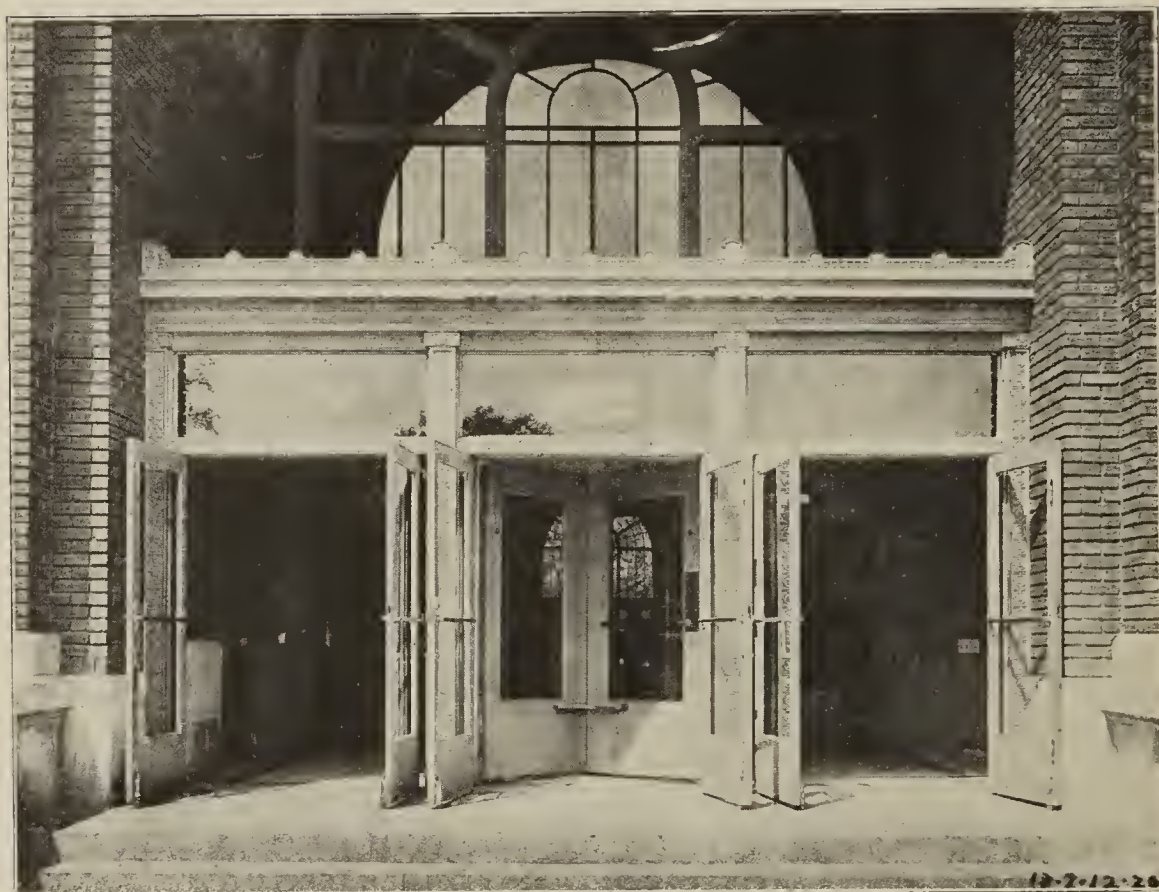
In reply to your valued favor of recent date, we beg to say that the door installed at our Store located at #324 Michigan Ave. South is very satisfactory in every respect, and we can highly recommend it- to anyone you may refer to us.

Yours very truly,

THE LEISER COMPANY,

Per





West Entrance Lion House, Lincoln Park, Chicago

American Standing Revolving Doors have been installed in both entrances of the new Lion and Tiger House in Lincoln Park. Read the letter of the Director of the Lincoln Park Zoo on opposite page.

COMMISSIONERS

FRANCIS T. SIMMONS, PRESIDENT
BRYAN LATHROP, VICE-PRESIDENT
FREDERICK L. WILK, AUDITOR
LEO AUSTRIAN
T. H. GANSBERGEN
AMOS PETTIBONE
CHARLES H. WILSON

THE COMMISSIONERS OF LINCOLN PARK
NORTH CLARK & CENTER STS
CHICAGO

OFFICERS

ARTHUR S. LEWIS, SECY & SUPT
CHAS. A. CHURAN, ATTORNEY
THEODORE FREEMAN, TREAS.
O. C. SIMMONS,
CONSULTING LANDSCAPE GARDENER
TELEPHONE LINCOLN 2410

Aug. 7th, 1913.

American Revolving Door Co.

Chicago, Ill.

Gentlemen:

The two "Standard" Revolving Doors installed by your company in the New Lion House have been now been in use about ten months.

As you know no expense has been spared to make it the model building of its kind in the world, and the fact that we have equipped it with "Standard" Revolving Doors, not from an economical stand point but because we had to have the best door, the door that would enable us to keep the building at an even temperature in the coldest weather so that our animals from the tropics could live free from draughts and colds.

It will no doubt prove gratifying to you to know that your doors have satisfactorily passed in every trial. They are unquestionably economical from the fuel point of view especially is so large a building as this where a direct draft through would make heating a serious problem. Besides they allow us to handle systematically the largest crowds and no congestion is experienced.

In material, workmanship and mechanical operation the doors are all that can be desired and their handsome appearance add materially to the effect of the entrances.

Yours very truly,

C. B. Drury

Director Lincoln Park Zoo.



Efting's Cafe, 1321 S. Michigan Ave., Chicago

OFFICE
40 N. DEARBORN STREET
TELEPHONE } CENTRAL 284
 } AUTOMATIC 4E-124

B. J. Efting

LUNCH ROOMS
1321 MICHIGAN AVENUE
73 E. 22ND STREET
204 W. KIMZIE STREET
172 W. HARRISON STREET
820 RUSH STREET

Gentlemen-

The revolving door you installed for me at 1321 Michigan Avenue early last fall is entirely satisfactory and up to date it is in perfect working order.

I am very well pleased with the purchase of the door and fully appreciate the courteous treatment I received from your Mr. J. J. Schaller.

Respectfully

Dic. BJE/B

B. J. Efting

THE COLUMBIA MILLS, INC.

BRANCHES
NEW YORK, CHICAGO,
BOSTON, PHILADELPHIA,
CINCINNATI,
DETROIT,
MINNEAPOLIS,
PITTSBURGH,
NEW ORLEANS,
KANSAS CITY

SHADE CLOTH
WINDOW SHADES



LACE CURTAINS
SHADE ROLLERS

224-230 WEST

MONROE ST.

MILLS
CHICAGO, BOSTON,
JERSEY CITY,
DETROIT,

MINNETO,
WILKES-BARRE,
SAGINAW,
BAY CITY.

CHICAGO, ILL.

Aug. 11, 1913

Gentlemen:-

Referring to the American "Standard" Revolving Doors with which you equipped our building about five years ago, will say, that they have been in constant daily use since then, and that we have never had the least bit of trouble, or had any occasion to make any repairs upon them. They save fuel and prevent drafts.

The original weather strips with which you equipped the doors, are still in good condition, and the original finish is still on the doors, and they look nearly as good as the day they were installed.

You are at liberty to refer to us at any time in reference to these doors.

Yours very truly,

THE COLUMBIA MILLS, INC.

ECS:K



Entrance to The Fair, Chicago

American Revolving Doors are installed in The Fair Department Store, Chicago. The actual use of our doors in such a busy place as this is a testimonial to their reliability and merit—over 10,000 people have been counted entering and leaving via the above doors within one hour.

STANDARD REVOLVING DOORS

Furnished recently for U. S. Government Post Offices,
Court Houses and Custom Houses

Athens, Ohio	Houlton, Maine	Marietta, Ga.
Bloomington, Ill.	Hillsdale, Mich.	Maysville, Ky.
Chester, S. C.	Jackson, Miss.	Mt. Sterling, Ky.
Centralia, Ill.	Kenosha, Wis.	Newark, N. J.
Coldwater, Mich.	Lander, Wyo.	New Ulm, Minn.
Concord, N. H.	Laramie, Wyo.	Owensboro, Ky.
Delaware, Ohio	Litchfield, Ill.	Pontiac, Mich.
Dixon, Ill.	Lowell, Mass.	Portsmouth, Ohio
Frankfort, Ky.	Manchester, Va.	Shenandoah, Iowa
Greenville, Ill.	Manistee, Mich.	Stevens Pt., Wis.
Greenville, Ohio	Manitowoc, Wis.	Texarkana, Ark.

Other Public Buildings

Masonic Temple, Chicago, Ill.
 Eftings Cafe, Chicago, Ill.
 Congress Hotel, Chicago, Ill.
 Sears-Roeback & Co., Chicago, Ill.
 Columbia Office Building, Chicago, Ill.
 Schoenhofen Office Building, Chicago, Ill.
 Chase & Sanborn Office Building, Chicago, Ill.
 Illinois Central Office Building, Chicago, Ill.
 "The Fair" Department Store, Chicago, Ill.
 Leiser Co., McCormick Building, Chicago, Ill.
 "Lloyd" Department Store, Chicago, Ill.
 Lebolt's Jewelry Store, Chicago, Ill.
 John R. Thompson Restaurant, Chicago, Ill.
 Gunthers Candies, Chicago, Ill.
 Kuehns Restaurant, Chicago, Ill.
 Drexel Cafe, Chicago, Ill.
 Lion House, Lincoln Park, Chicago, Ill.
 Lamb's Cafe, Chicago, Ill.
 Stillson's Cafe, Chicago, Ill.
 Second Security Bank, Chicago, Ill.
 Western Union Telegraph Building, Chicago.
 City Hall, Omaha, Neb.
 Chickasaw Building, Memphis, Tenn.
 Hotel Terry, Sedalia, Mo.
 Hotel Statler, Buffalo, N. Y.
 Hotel Sinton, Cincinnati, Ohio.
 Hotel Griswolt, Detroit, Mich.
 Hotel Tuller, Detroit, Mich.
 Hotel Maryland, Milwaukee, Wis.
 Hotel Beaumont, Green Bay, Wis.
 Hotel Anthes, Fort Madison, Wis.
 Geiser Grand Hotel, Baker City, Ore.
 First National Bank Building, Muscatine, Ia.
 Goettman Restaurant, Pittsburg, Pa.
 Marshall, Illsey Bank, Milwaukee, Wis.
 Pfister Vogel Leather Co., Milwaukee, Wis.
 Trostel Office Building, Milwaukee, Wis.
 York-Key Co., Woodward, Okla.
 American Bank, El Paso, Texas
 Banner Building, El Paso, Texas.
 P. O. at Strathcona, Alberta, Can.
 Union Bank, St. Joseph, Mich.
 Stallman Building, Nashville, Tenn.

